

## Switched ePDU Setup Guide

### Hardware Setup

1. To use the RS232 serial interface, connect the serial cable provided to the port labeled Serial on the top of the unit and connect the other end to an available computer DB9 serial port (COM port).
2. To use the web, telnet, or SNMP interfaces, connect a standard Ethernet cable (included) from the RJ45 connector labeled NET on the top of the unit to an available port on a network switch.
3. Connect the power cable to an appropriate electrical outlet. If the unit has an IEC power inlet, connect a matching power cable from the inlet to an electrical outlet (power cable for units with inlets must be ordered separately).

### Configuration and Control via Serial (RS232) Connection

1. After connecting the included serial cable from the IPV to a computer's RS232 port and connecting the IPV to an electrical power source, start a terminal emulation program (such as HyperTerminal) with the following settings:

Baud Rate	9600 (Default)
Data Bits	8
Parity	None
Stop Bits	1
Flow Control	None
Terminal Type	ANSI (VT100)
Local Echo	Off

2. About 15 seconds after power is applied to the unit, the IPV's network and hardware parameters will be displayed for about 5 seconds. After this, the unit will complete its initialization and present a login prompt. A sample of the boot text follows:

- Decompressing Image into RAM, please wait...

```
Eaton Corporation
Distributed Power Solutions - ePDU
Support and Sales:
Email: SinglePhaseTS@eaton.com
NET+WORKS Version 6.0
PLATFORM: IPC3600
APPLICATION: Eaton Switched ePDU Firmware 2.0.H
```

-----

NETWORK INTERFACE PARAMETERS:

```
IP address on LAN is 192.168.168.168
LAN interface's subnet mask is 255.255.255.0
IP address of default gateway to other networks is 192.168.168.1
```

HARDWARE PARAMETERS:

```
Serial channels will use a baud rate of 9600
This board's MAC Address is 00:04:F3:00:21:69
```

```
After board is reset, start-up code will wait 5 seconds
Default duplex setting for Ethernet connection: Half Duplex
The unit is configured for 24 outlets.
Resetting system defaults: No
Strapping ID: 0
```

```
-----
FS-FORTH NVRAM Format. START_OF_FREE_NVRAM=0x140
Press any key in 5 seconds to change these settings.
```

```
Loading Data from NVRAM.
Com1 Online at 8,N,1,None 9600 Baud.
Current time and date:
  Date: mm/dd/yyyy
  Time: hh:mm
Standard Web Server Started on Port 80.
Telnet Services started on Port 23.
SNMP Services are currently disabled in this device.
Email Services Started - Mail Server:0.0.0.0.
```

Eaton Powerware Switched ePDU Login

Enter UserName:

3. Enter the default username (Admin) and the default password (ipc) at the login prompt. Note: Both username and password are case sensitive, as is the text-based menu navigation. The main menu should be displayed after logging in. The screen should display the following:

```
Eaton Powerware Switched ePDU
Software Version 2.0.H
-----
Date:      mm/dd/yyyy
Time:      hh:mm
Up Time:    0 day(s) 0 hour(s) 0 minute(s)
User:      Admin
Unit Name:  Switched ePDU,  Strapping ID:  0
```

```
-- Main Menu --
1- Outlet Control
2- Outlet-Environmental Configuration
3- Unit Configuration
4- Outlet-Environmental Status
5- Logout
6- Soft Reboot
7- Choose Strapping Device
```

Select Item Number: 3

4. After the main menu is displayed, you may select any of the menu options by pressing the corresponding option number.
5. If you plan to use the network-based interfaces (web, telnet, or SNMP), you will need to configure the network settings. These are available by selecting option 3 (Unit Configuration), then option 2 (Network Configuration). Note: Changes to network settings will not take effect until the unit has been rebooted. Selecting option 6 from the main menu will implement a soft reboot.

### ***Configuration and Control via Network Connection***

Note: The unit comes with a default IP address of 192.168.168.168. If you are unable to connect to the unit via the network connection with this default address, it will be necessary to first change the IP address from the serial interface before using any of the network interfaces.

## Web Interface

The web interface can be accessed using any standard web browser that supports JavaScript and 64-bit encryption. Up to 11 users may be logged into the web interface at a time regardless of serial or telnet connections. Web access is enabled by default, but the Admin user can disable it via any interface from the Network Settings configuration screen.

1. Using your favorite web browser, navigate to the IPV's IP address (e.g., <http://192.168.168.168/>).
2. Enter the default username (Admin) and the default password (ipc) at the login prompt (both are case sensitive).
3. A home screen will be displayed with a navigation bar on the left and the unit status on the right. Clicking any of the links in the navigation bar will open the corresponding page in the right portion of the screen. A sample of the home/outlet status page follows:

The screenshot displays the Eaton ePDU web interface. On the left is a navigation menu with sections: SWITCHED ePDU, STATUS (with links for Unit and Power Log), CONTROL (with links for Outlets and Groups), and CONFIGURATION (with links for Outlets, Groups, Scheduler, Environmental, Unit, Network, Users, Log, Select Unit, Help, and Log Out). The main content area is titled 'UNIT STATUS' and shows unit information: Unit Name: Switched ePDU (0), IP: 66.231.7.229, Time: 07:40, User Name: Admin, Up Time: 19 day(s) 21 hour(s) 42 minute(s), and Date: 02/16/2009. Below this is a table for outlet statistics:

	Voltage	Current	Power
Outlet Section 1	147V	0.0A	0.0VA
Outlet Section 2	147V	0.0A	0.0VA
Total		0.0A	0.0VA

Below the table is a 'Sensor Measurements' section with a grid for Temperature 1, Temperature 2, Humidity 1, Switch 1, Switch 2, and Switch 3. Two tabs, 'Outlets 1-8' and 'Outlets 9-16', are visible. The 'Outlets 1-8' tab is active, showing a table of outlet status:

Outlet	Outlet Name	Status
1	Outlet 1	On
2	Outlet 2	On
3	Outlet 3	On
4	Outlet 4	On
5	Outlet 5	On
6	Outlet 6	On
7	Outlet 7	On
8	Outlet 8	On

At the bottom, a footer note reads: 'Question or Comments about this device? Please contact [eaton.com/powerquality](http://eaton.com/powerquality) for support. All contents copyright © 2009 Eaton Corporation. All Rights Reserved.'

## Telnet Interface

The telnet interface is text-driven and uses a menu structure almost identical to that accessed via serial connection. Any standard telnet client will work with this interface. Telnet access is enabled by default, but the Admin user can disable it via any interface from the Network Settings configuration screen. Warning: Using the serial and telnet interfaces at the same time may cause unpredictable results. Do not use these interfaces simultaneously.

1. Using your favorite telnet client, connect using the unit's IP address (e.g., 192.168.168.168), port 23. You will be greeted by a login prompt.

2. Enter the default username (Admin) and the default password (ipc) at the login prompt (both are case sensitive). The main menu should be displayed after logging in:

```
Eaton Powerware Switched ePDU Login  
Version 2.0.H
```

```
login: Admin  
Password: ***
```

```
Eaton Powerware Switched ePDU  
Version 2.0.H
```

```
-----  
Date:      mm/dd/yyyy  
Time:      mm:hh  
Up Time:   0 day(s) 0 hour(s) 0 minute(s)  
User:      Admin  
Unit Name: Switched ePDU, Strapping ID: 0
```

```
-- Main Menu --  
1- Outlet Control  
2- Outlet-Environmental Configuration  
3- Unit Configuration  
4- Outlet-Environmental Status  
5- Logout  
6- Soft Reboot  
7- Choose Strapping Device
```

```
Select Item Number:
```

## SNMP Interface

The SNMP interface conforms to versions 1 and 2c of the SNMP protocol. Settings can be read from and written to the unit via this interface, and configurable traps can be directed to a network IP address. A MIB file can be downloaded from [www.ePDU.com](http://www.ePDU.com). Note that SNMP is disabled by default.

1. From the serial/telnet interface, go to Unit Configuration -> Network Settings menu; in the web interface, go to the Network Configuration page.
2. Set the "SNMP Enabled" setting to Enabled. The public and private community names may be customized if desired.
3. Soft Reboot the unit from the main menu in the serial/telnet interface or from the Unit Configuration page in the web interface.
4. After the unit finishes rebooting (about 45 seconds), execute a Get Next or Walk command from an SNMP client. Make sure to use the correct public and private community strings.

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Declarations and updates  
available at [www.ePDU.com](http://www.ePDU.com)  
Email: [singlephaseTS@eaton.com](mailto:singlephaseTS@eaton.com)  
ISO9001:2000

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